

Buoyancy Lab

Materials:

Aluminum Foil

Duct Tape

Nuts and Washers

Straws

Ruler

Procedure:

1. Use the aluminum foil, tape, and straws to construct 6 boats:

Make sure the bottom of each boat is flat

2. Calculate the volume of each boat

3. Float your boat in the water

4. Slowly add nuts and washers until the boat sinks

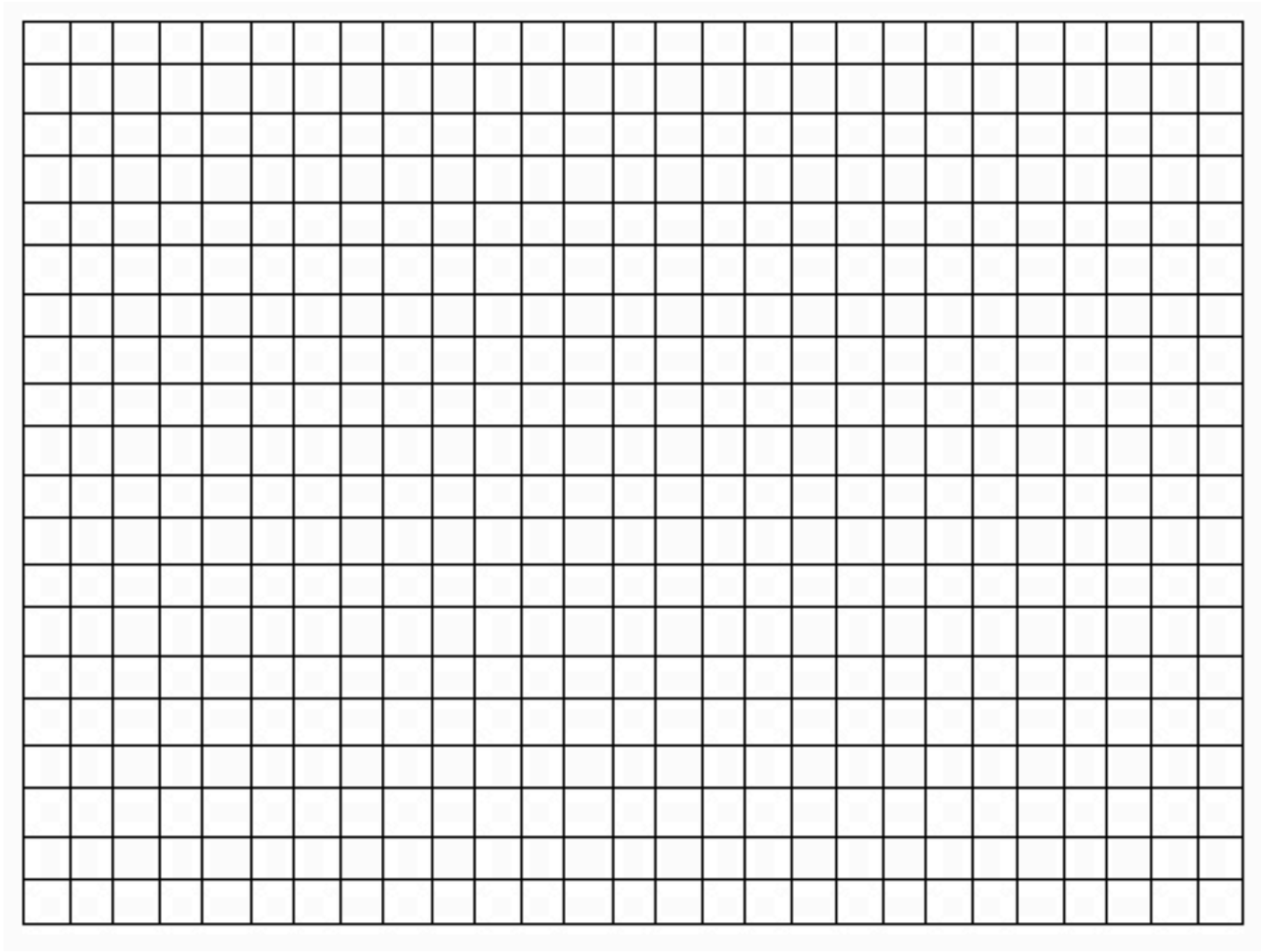
5. Determine the mass it took to sink the boat

Make sure the nuts and washers are completely dry before weighing on the scale

6. Complete the following table:

Boat	Volume (cm ³)	Mass (g)	Density (g/cm ³)
1			
2			
3			
4			
5			
6			

7. Graph Volume (x-axis) vs. Mass (y-axis):



8. What is the relationship between the volume of your boat and the mass it can carry?

9. In what direction does the force of buoyancy act?